

For information on postsecondary vocational-technical education teaching positions, contact State departments of vocational-technical education.

General information on adult and vocational education is available from:

- Association for Career and Technical Education, 1410 King St., Alexandria, VA 22314. Internet: <http://www.acteonline.org>
- ERIC Clearinghouse on Adult, Career, and Vocational Education, 1900 Kenny Rd., Columbus, OH 43210. Internet: <http://www.ericacve.org>

Teachers—Preschool, Kindergarten, Elementary, Middle, and Secondary

(O*NET 25-2011.00, 25-2012.00, 25-2021.00, 25-2022.00, 25-2023.00, 25-2031.00, 25-2032.00)

Significant Points

- Public school teachers must have at least a bachelor's degree, complete an approved teacher education program, and be licensed.
- Many States offer alternative licensing programs to attract people into teaching, especially for hard-to-fill positions.
- Excellent job opportunities will stem from the large number of teachers expected to retire over the next 10 years, particularly at the secondary school level; job outlook will vary by geographic area and subject specialty.

Nature of the Work

Teachers act as facilitators or coaches, using interactive discussions and “hands-on” learning to help students learn and apply concepts in subjects such as science, mathematics, or English. As teachers move away from the traditional repetitive drill approaches and rote memorization, they are using more “props” or “manipulatives” to help children understand abstract concepts, solve problems, and develop critical thought processes. For example, they teach the concepts of numbers or adding and subtracting by playing board games. As children get older, they use more sophisticated materials such as science apparatus, cameras, or computers.

Many classes are becoming less structured, with students working in groups to discuss and solve problems together. Preparing students for the future workforce is the major stimulus generating the changes in education. To be prepared, students must be able to interact with others, adapt to new technology, and logically think through problems. Teachers provide the tools and environment for their students to develop these skills.

Preschool, kindergarten, and elementary school teachers play a vital role in the development of children. What children learn and experience during their early years can shape their views of themselves and the world, and affect later success or failure in school, work, and their personal lives. Preschool, kindergarten, and elementary school teachers introduce children to numbers, language, science, and social studies. They use games, music, artwork, films, books, computers, and other tools to teach basic skills.

Preschool children learn mainly through play. Recognizing the importance of play, preschool teachers build their program around it. They capitalize on children's play to further language development (storytelling and acting games), improve social skills (working together to build a neighborhood in a sandbox), and introduce

scientific and mathematical concepts (balancing and counting blocks when building a bridge or mixing colors when painting). Thus, a less structured approach is used to teach preschool children, including small group lessons, one-on-one instruction, and learning through creative activities, such as art, dance, and music. Play and hands-on teaching also are used in kindergarten classrooms, but academics begins to take priority. Letter recognition, phonics, numbers, and awareness of nature and science are taught primarily by kindergarten teachers.

Most elementary school teachers instruct one class of children in several subjects. In some schools, two or more teachers work as a team and are jointly responsible for a group of students in at least one subject. In other schools, a teacher may teach one special subject—usually music, art, reading, science, arithmetic, or physical education—to a number of classes. A small but growing number of teachers instruct multilevel classrooms, with students at several different learning levels.

Middle and secondary school teachers help students delve more deeply into subjects introduced in elementary school and expose them to more information about the world. Middle and secondary school teachers specialize in a specific subject, such as English, Spanish, mathematics, history, or biology. They also can teach subjects that are career-oriented. Vocational education teachers instruct and train students to work in a wide variety of fields, such as health care, business, auto repair, communications, and, increasingly, technology. They often teach courses that are in high demand by area employers, who may provide input into the curriculum and offer internships to students. (Special education teachers—who instruct elementary and secondary school students who have a variety of disabilities—are discussed separately in this section of the *Handbook*.)

Teachers may use films, slides, overhead projectors, and the latest technology in teaching, including computers, telecommunication systems, and video discs. Use of computer resources, such as educational software and the Internet, exposes students to a vast range of experiences and promotes interactive learning. Through the Internet, American students can communicate with students in other countries. Students also use the Internet for individual research projects and information gathering. Computers are used in other classroom activities as well, from helping students solve math problems to learning English as a second language. Teachers also may use computers to record grades and perform other administrative and clerical duties. They must continually update their skills so that they can instruct and use the latest technology in the classroom.

Teachers often work with students from varied ethnic, racial, and religious backgrounds. With growing minority populations in many parts of the country, it is important for teachers to establish rapport with a diverse student population. Accordingly, some schools offer training to help teachers enhance their awareness and understanding of different cultures. Teachers may also include multicultural programming in their lesson plans to address the needs of all students, regardless of their cultural background.

Teachers design classroom presentations to meet student needs and abilities. They also work with students individually. Teachers plan, evaluate, and assign lessons; prepare, administer, and grade tests; listen to oral presentations; and maintain classroom discipline. They observe and evaluate a student's performance and potential, and increasingly are asked to use new assessment methods. For example, teachers may examine a portfolio of a student's artwork or writing to judge the student's overall progress. They then can provide additional assistance in areas where a student needs help. Teachers also grade papers, prepare report cards, and meet with parents and school staff to discuss a student's academic progress or personal problems.



Teachers must communicate well, inspire trust and confidence, and motivate students to learn.

In addition to classroom activities, teachers oversee study halls and homerooms, supervise extracurricular activities, and accompany students on field trips. They identify physical or mental problems and refer students to the proper resource or agency for diagnosis and treatment. Secondary school teachers occasionally assist students in choosing courses, colleges, and careers. Teachers also participate in education conferences and workshops.

In recent years, site-based management, which allows teachers and parents to participate actively in management decisions, has gained popularity. In many schools, teachers are increasingly involved in making decisions regarding the budget, personnel, textbook choices, curriculum design, and teaching methods.

Working Conditions

Seeing students develop new skills and gain an appreciation of knowledge and learning can be very rewarding. However, teaching may be frustrating when one is dealing with unmotivated or disrespectful students. Occasionally, teachers must cope with unruly behavior and violence in the schools. Teachers may experience stress when dealing with large classes, students from disadvantaged or multicultural backgrounds, and heavy workloads. Schools, particularly in inner cities, may be run down and lack the amenities of schools in wealthier communities.

Teachers are sometimes isolated from their colleagues because they work alone in a classroom of students. However, some schools are allowing teachers to work in teams and with mentors to enhance their professional development.

Including school duties performed outside the classroom, many teachers work more than 40 hours a week. Part-time schedules are more common among preschool and kindergarten teachers. Although some school districts have gone to all-day kindergartens, most kindergarten teachers still teach two kindergarten classes a day. Most teachers work the traditional 10-month school year with a 2-month vacation during the summer. During the vacation break, those on the 10-month schedule may teach in summer sessions, take other jobs, travel, or pursue other personal interests. Many enroll in college courses or workshops to continue their education. Teachers in districts with a year-round schedule typically work 8 weeks, are on vacation for 1 week, and have a 5-week midwinter break. Preschool teachers working in day care settings often work year round.

Most States have tenure laws that prevent teachers from being fired without just cause and due process. Teachers may obtain tenure after they have satisfactorily completed a probationary period

of teaching, normally 3 years. Tenure does not absolutely guarantee a job, but it does provide some security.

Employment

Teachers held about 3.8 million jobs in 2000. Of those, about 1.5 million were elementary school teachers, 1.1 million were secondary school, 590,000 were middle school, 423,000 were preschool, and 175,000 were kindergarten teachers. Approximately 15 percent of elementary, middle, and secondary school teachers work for private schools. Preschool facilities are often located in schools, religious institutions, and workplaces in which employers provide day care for their employees' children. Employment of teachers is distributed geographically, much the same as the population.

Training, Other Qualifications, and Advancement

All 50 States and the District of Columbia require public school teachers to be licensed. Licensure is not required for teachers in private schools. Usually licensure is granted by the State board of education or a licensure advisory committee. Teachers may be licensed to teach the early childhood grades (usually nursery school through grade 3); the elementary grades (grades 1 through 6 or 8); the middle grades (grades 5 through 8); a secondary education subject area (usually grades 7 through 12); or a special subject, such as reading or music (usually grades kindergarten through 12).

Requirements for regular licenses to teach kindergarten through grade 12 vary by State. However, all States require general education teachers to have a bachelor's degree and to have completed an approved teacher training program with a prescribed number of subject and education credits as well as supervised practice teaching. About one-third of the States also require technology training as part of the teacher certification process. A number of States require specific minimum grade point averages for teacher licensure. Other States require teachers to obtain a master's degree in education, which involves at least 1 year of additional coursework beyond the bachelor's degree, with a specialization in a particular subject.

Almost all States require applicants for teacher licensure to be tested for competency in basic skills such as reading, writing, teaching, and subject matter proficiency. Most States require continuing education for renewal of the teacher's license. Many States have reciprocity agreements that make it easier for teachers licensed in one State to become licensed in another.

Increasingly, States are moving towards implementing performance-based standards for licensure, which require passing a rigorous comprehensive teaching examination to obtain a provisional license. Teachers must then demonstrate satisfactory teaching performance over an extended period to obtain a full license.

Many States offer alternative teacher licensure programs for people who have bachelor's degrees in the subject they will teach, but lack the necessary education courses required for a regular license. Alternative licensure programs originally were designed to ease teacher shortages in certain subjects, such as mathematics and science. The programs have expanded to attract other people into teaching, including recent college graduates and mid-career changers. In some programs, individuals begin teaching quickly under provisional licensure. After working under the close supervision of experienced educators for 1 or 2 years while taking education courses outside school hours, they receive regular licensure if they have progressed satisfactorily. Under other programs, college graduates who do not meet licensure requirements take only those courses that they lack, and then become licensed. This may take 1 or 2 semesters of full-time study. States may issue emergency licenses to individuals who do not meet requirements for a regular license when schools cannot attract enough qualified teachers to

fill positions. Teachers who need licensure may enter programs that grant a master's degree in education, as well as a license.

In many States, vocational teachers have many of the same requirements for teaching as their academic counterparts. However, since knowledge and experience in a particular field are the most important criteria for the job, some States will license vocational education teachers without a bachelor's degree, provided they can demonstrate expertise in their field.

Licensing requirements for preschool teachers vary by State. Requirements for public school teachers are generally higher than those for private preschool teachers. Some States require a bachelor's degree in early childhood education and others require an associate degree, while others may require certification by a nationally recognized authority. The Child Development Associate (CDA) credential is the most common type of certification. It requires a mix of classroom training and experience working with children, along with an independent assessment of an individual's competence.

For several years, the National Board for Professional Teaching Standards has offered voluntary national certification for teachers in kindergarten through grade 12. To become nationally certified, teachers must prove their aptitude by compiling a portfolio showing their work in the classroom, and by passing a written assessment and evaluation of their teaching knowledge. Currently, teachers may become certified in 1 of 7 areas. These areas are based on the age of the students and, in some cases, subject area. For example, teachers may obtain a certificate for teaching English language arts to early adolescents (ages 11-15), or they may become certified as early childhood generalists. All States recognize national certification, and many States and school districts provide special benefits to teachers holding national certification. Benefits typically include higher salaries and reimbursement for continuing education and certification fees. Additionally, many States allow nationally certified teachers to carry a license from one State to another.

The National Council for Accreditation of Teacher Education currently accredits more than 500 teacher education programs across the United States. Generally, 4-year colleges require students to wait until their sophomore year before applying for admission to teacher education programs. Traditional education programs for kindergarten and elementary school teachers include courses—designed specifically for those preparing to teach—in mathematics, physical science, social science, music, art, and literature, as well as prescribed professional education courses such as philosophy of education, psychology of learning, and teaching methods. Aspiring secondary school teachers either major in the subject they plan to teach while also taking education courses, or major in education and take subject courses. Teacher education programs are now required to include classes in the use of computers and other technologies to maintain accreditation. Most programs require students to perform a student teaching internship.

Many States now offer professional development schools, which are partnerships between universities and elementary or secondary schools. Students enter these 1-year programs after completion of their bachelor's degree. Professional development schools merge theory with practice and allow the student to experience a year of teaching first-hand, with professional guidance.

In addition to being knowledgeable in their subject, teachers must have the ability to communicate, inspire trust and confidence, and motivate students, as well as understand their educational and emotional needs. Teachers must be able to recognize and respond to individual differences in students, and employ different teaching methods that will result in higher student achievement. They should be organized, dependable, patient, and creative. Teachers also must be able to work cooperatively and communicate effectively with

other teaching staff, support staff, parents, and other members of the community.

With additional preparation, teachers may move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Teachers in kindergarten through grade 12 may become administrators or supervisors, although the number of these positions is limited and competition can be intense. In some systems, highly qualified, experienced teachers can become senior or mentor teachers, with higher pay and additional responsibilities. They guide and assist less experienced teachers while keeping most of their own teaching responsibilities. Preschool teachers usually work their way up from assistant teacher, to teacher, then to lead teacher—who may be responsible for instruction of several classes—and finally to director of the center. A master's degree is often required to become a director. Preschool teachers with a bachelor's degree often are also qualified to teach kindergarten through grade 3. Teaching at these higher grades often results in higher pay.

Job Outlook

Job opportunities for teachers over the next 10 years should be excellent, attributable mostly to the large number of teachers expected to retire. Although employment of preschool, kindergarten, elementary, middle, and secondary school teachers is expected to increase about as fast as the average for all occupations, a large proportion will be eligible to retire by 2010, creating many vacancies, particularly at the secondary school level. Intense competition for good teachers is already under way among employers in many locations, with schools luring teachers from other States and districts with bonuses and higher pay.

Overall enrollments through 2010, a key factor in the demand for teachers, are projected to rise slowly, resulting in average employment growth for all teachers from preschool to secondary grades. However, projected enrollments vary by region. States in the South and West—particularly California, Texas, Arizona, and Georgia—will experience large enrollment increases, while States in the Northeast and Midwest may experience declines. Projected enrollments also differ by grade, with enrollments rising moderately in grades 9 through 12, while remaining fairly steady for all other grades over the 2000-10 period.

The job market for teachers also continues to vary by school location and by subject specialty. Many inner cities—often characterized by overcrowded, ill-equipped schools and higher than average poverty rates—and rural areas—characterized by their remote location and relatively low salaries—have difficulty attracting enough teachers, so job prospects should be better in these areas than in suburban districts. Currently, many school districts have difficulty hiring qualified teachers in some subject areas—mathematics, science (especially chemistry and physics), bilingual education, foreign languages, and computer science. Specialties that currently have an adequate number of qualified teachers include general elementary education, physical education, and social studies. Teachers who are geographically mobile and who obtain licensure in more than one subject should have a distinct advantage in finding a job. Increasing enrollments of minorities, coupled with a shortage of minority teachers, should cause efforts to recruit minority teachers to intensify. Also, the number of non-English speaking students has grown dramatically, especially in California and Florida, which have large Spanish-speaking student populations, creating demand for bilingual teachers and those who teach English as a second language.

The number of teachers employed also is dependent on State and local expenditures for education and enactment of legislation to increase the quality of education. A number of initiatives, such as reduced class size (primarily in the early elementary grades),

mandatory preschool for 4-year-olds, and all-day kindergarten have been implemented in a few States, but implementation nationwide has been limited. Additional teachers, particularly preschool and early elementary school teachers, will be needed if States or localities implement any of these measures. Because of a shortage of teachers in certain locations and in anticipation of the loss of a number of teachers to retirement, many States are implementing policies that will encourage more students to become teachers. Some are giving large signing bonuses that are distributed over the teacher's first few years of teaching. Some are expanding State scholarships; issuing loans for moving expenses; and implementing loan-forgiveness programs, allowing education majors with at least a B average to receive State-paid tuition so long as they agree to teach in the State for 4 years.

The supply of teachers also is expected to increase in response to reports of improved job prospects, more teacher involvement in school policy, and greater public interest in education. In recent years, the total number of bachelor's and master's degrees granted in education has steadily increased. In addition, more teachers will be drawn from a reserve pool of career changers, substitute teachers, and teachers completing alternative certification programs, relocating to different schools, and re-entering the workforce.

Earnings

Median annual earnings of kindergarten, elementary, middle, and secondary school teachers ranged from \$37,610 to \$42,080 in 2000; the lowest 10 percent earned \$23,320 to \$28,460; the top 10 percent earned \$57,590 to \$64,920. Median earnings for preschool teachers were \$17,810.

According to the American Federation of Teachers, beginning teachers with a bachelor's degree earned an average of \$27,989 in the 1999-2000 school year. The estimated average salary of all public elementary and secondary school teachers in the 1999-2000 school year was \$41,820. Private school teachers generally earn less than public school teachers.

In 1999, more than half of all public school teachers belonged to unions—mainly the American Federation of Teachers and the National Education Association—that bargain with school systems over wages, hours, and the terms and conditions of employment.

Teachers can boost their salary in a number of ways. In some schools, teachers receive extra pay for coaching sports and working with students in extracurricular activities. Getting a master's degree or national certification often results in a raise in pay, as does acting as a mentor teacher. Some teachers earn extra income during the summer teaching summer school or performing other jobs in the school system.

Related Occupations

Preschool, kindergarten, elementary, middle, and secondary school teaching requires a variety of skills and aptitudes, including a talent for working with children; organizational, administrative, and recordkeeping abilities; research and communication skills; the power to influence, motivate, and train others; patience; and creativity. Workers in other occupations requiring some of these aptitudes include teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; childcare workers; public relations specialists; social workers; and athletes, coaches, umpires, and related workers.

Sources of Additional Information

Information on licensure or certification requirements and approved teacher training institutions is available from local school systems and State departments of education.

Information on the teaching profession and on how to become a teacher can be obtained from:

➤ Recruiting New Teachers, Inc., 385 Concord Ave., Suite 103, Belmont, MA 02478. Internet: <http://www.rnt.org>

This organization also sponsors another Internet site that provides helpful information on becoming a teacher:

<http://www.recruitingteachers.org>

Information on teachers' unions and education-related issues may be obtained from:

➤ American Federation of Teachers, 555 New Jersey Ave. NW., Washington, DC 20001. Internet: <http://www.aft.org>

➤ National Education Association, 1201 16th St. NW., Washington, DC 20036. Internet: <http://www.nea.org>

A list of institutions with accredited teacher education programs can be obtained from:

➤ National Council for Accreditation of Teacher Education, 2010 Massachusetts Ave. NW., Suite 500, Washington, DC 20036. Internet:

<http://www.ncate.org>

For information on careers in educating children and issues affecting preschool teachers, contact:

➤ National Association for the Education of Young Children, 1509 16th St. NW., Washington, DC 20036. Internet: <http://www.naeyc.org>

➤ Association for Childhood Education International, 17904 Georgia Ave., Suite 215, Olney, MD 20832-2277. Internet: <http://www.acei.org>

For eligibility requirements and a description of the Child Development Associate credential, contact:

➤ Council for Early Childhood Professional Recognition, 2460 16th St. NW., Washington, DC 20009. Internet: <http://www.cdacouncil.org>

Teachers—Special Education

(O*NET 25-2041.00, 25-2042.00, 25-2043.00)

Significant Points

- A bachelor's degree, completion of an approved teacher preparation program, and a license are required to qualify; many States require a master's degree.
- Many States offer alternative licensure programs to attract people into these jobs.
- Excellent job prospects are expected due to rising enrollments of special education students and reported shortages of qualified teachers.

Nature of the Work

Special education teachers work with children and youths who have a variety of disabilities. A small number of special education teachers work with severely mentally retarded or autistic children, primarily teaching them life skills and basic literacy. However, the majority of special education teachers work with children with mild to moderate disabilities, using the general education curriculum, or modifying it, to meet the child's individual needs. Most special education teachers instruct students at the elementary, middle, and secondary school level, although some teachers work with infants and toddlers.

The various types of disabilities qualifying for special education programs include specific learning disabilities, speech or language impairments, mental retardation, emotional disturbance, multiple disabilities, hearing impairments, orthopedic impairments, visual impairments, autism, deaf-blindness, traumatic brain injury, and other health impairments. Students are classified under one of the categories, and special education teachers are prepared to work with specific groups. Early identification of a child with special needs is